

Customer No.: 31561
Application No.: 10/708,171
Docket NO.: 12681-US-PA

REMARKS

Present Status of the Application

The Final Office Action rejected claims 1-8. Specifically, claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroder (U. S Patent 6,215,135) in view of Chen et al. (U. S. Patent 6,016,002; hereinafter Chen). The Advisory Action sustains rejections. Applicants have amended independent claim 1 to improve clarity. Claims 1-8 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Office Action Rejections

As for example shown in FIG. 2, the common-use doped region 111 is the second source of the transistor 170 and is also the first drain of the transistor 180. The first doped region 122 with the first conductive type is disposed in the well region 140 of first conductive type and laterally adjacent to the first source 118. The first doped region 122, the first source 118 and the first gate 116 are electrically connected to an input pad 104. Further, a second doped region 112 with the first conductive type is disposed in the substrate of the first conductive type and laterally adjacent to the second drain 108. The second doped region 112, the second drain 108 and the second gate 106 are electrically connected to an output pad 102. In addition, as can be understood, the first transistor and the second transistor are in the same conductive type, such as the N-type transistor with the common-use doped region 111, serving as the first drain and the second source.

In this structure, the two parasitic transistors in the present invention can be created, after

Customer No.: 31561
Application No.: 10/708,171
Docket NO.: 12681-US-PA

connecting to the input pad 104 and the output pad 102. Further, the parasitic transistors are different for the positive current and the negative current as recited in claims 7-8.

In re Schroder, as shown in FIG. 1, only one well is formed. The two transistors MP and MN are in different conductive type and separated in different conductive type as the substrate. The well WLL and the substrate SBSTR are in different conductive type. The two doped regions d3 and d6 are in different conductive types. In other words, Schroder has disclose the structure, which is different from the present invention, and the equivalent circuit is different either.

In re Chen, Chen is used in combination with Schroder. Even though two well are disclosed, the structure and the circuit operation mechanism are different from the present invention and Schroder either. Chen does not provide the disclosure or the motivation to modify Schroder into the present invention.

Further with respect to claims 7-8, Schroder and Chen do not disclose the equivalent two parasitic transistors in the same circuit operation.

In conclusions, Schroder and Chen either alone or in combination does not disclose the features of the present invention.

For at least the foregoing reasons, Applicants respectfully submit that independent claim 1

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patently defines over the prior art references, and should be allowed. For at least the same reasons, dependent claims 2-8 patently define over the prior art references as well.

CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-8 of the invention patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,

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